**JAWABAN CPK 1 GRAFIKA KOMPUTER**

1. Membuat rumah 2D

Jawab :

Source code dan penjelasan membuat rumah 2D :

// Pemanggilan Library

#ifdef \_\_APPLE\_\_

#include <GLUT/glut.h>

#else

#include <GL/glut.h>

#endif

#include <stdlib.h>

// Pembuatan Method untuk inisialisasi project

void init()

{

glClearColor(0.5, 0.9, 0.4, 0.0);

glMatrixMode(GL\_PROJECTION);

gluOrtho2D(0.0, 800, 0.0, 600);

}

// Method untuk pembuatan rumah (kerangka rumah)

void home()

{

//Atap

glClear(GL\_COLOR\_BUFFER\_BIT);

glColor3f(0.3, 0.5, 0.8);

glBegin(GL\_POLYGON);

glVertex2i(200, 500);

glVertex2i(600, 500);

glVertex2i(700, 350);

glVertex2i(300, 350);

glEnd();

//atas dinding

glColor3f(0.1, 0.5, 0.0);

glBegin(GL\_TRIANGLES);

glVertex2i(200, 500);

glVertex2i(100, 350);

glVertex2i(300, 350);

glEnd();

//dinding

glColor3f(0.7, 0.2, 0.3);

glBegin(GL\_POLYGON);

glVertex2i(100, 350);

glVertex2i(300, 350);

glVertex2i(300, 100);

glVertex2i(100, 100);

glEnd();

//pintu

glColor3f(0.7, 0.2, 0.9);

glBegin(GL\_POLYGON);

glVertex2i(150, 250);

glVertex2i(250, 250);

glVertex2i(250, 100);

glVertex2i(150, 100);

glEnd();

//kunci pintu

glColor3f(0.3, 0.7, 0.9);

glPointSize(15);

glBegin(GL\_POINTS);

glVertex2i(170, 170);

glEnd();

//Dinding

glColor3f(0.1, 0.2, 0.3);

glBegin(GL\_POLYGON);

glVertex2i(300, 350);

glVertex2i(700, 350);

glVertex2i(700, 100);

glVertex2i(300, 100);

glEnd();

//Jendela

glColor3f(0.2, 0.4, 0.3);

glBegin(GL\_POLYGON);

glVertex2i(330, 320);

glVertex2i(450, 320);

glVertex2i(450, 230);

glVertex2i(330, 230);

glEnd();

//garis jendela

glColor3f(0.1, 0.7, 0.5);

glLineWidth(5);

glBegin(GL\_LINES);

glVertex2i(390, 320);

glVertex2i(390, 230);

glVertex2i(330, 273);

glVertex2i(450, 273);

glEnd();

//jendela

glColor3f(0.2, 0.4, 0.3);

glBegin(GL\_POLYGON);

glVertex2i(530, 320);

glVertex2i(650, 320);

glVertex2i(650, 230);

glVertex2i(530, 230);

glEnd();

//garis jendela

glColor3f(0.1, 0.7, 0.5);

glLineWidth(5);

glBegin(GL\_LINES);

glVertex2i(590, 320);

glVertex2i(590, 230);

glVertex2i(530, 273);

glVertex2i(650, 273);

glEnd();

//Teras

glColor3f(0.3, 0.5, 0.7);

glLineWidth(3);

glBegin(GL\_POLYGON);

glVertex2i(150, 100);

glVertex2i(250, 100);

glVertex2i(210, 0);

glVertex2i(40, 0);

glEnd();

glFlush();

}

// Main method untuk menginialisasi method yang sudah dibuat

int main(int argc, char\*\* argv)

{

glutInit(&argc, argv);

glutInitDisplayMode(GLUT\_SINGLE | GLUT\_RGB);

glutInitWindowPosition(100, 100);

glutInitWindowSize(500, 500);

glutCreateWindow("RUMAH ");

init();

glutDisplayFunc(home);

glutMainLoop();

}

Jika source code diatas di run akan menghasilkan gambar rumah seperti dibawah ini :